

HT-647HRTP
540 Line Color Dome Camera
Wall & Ceiling Mountable
Chameleon Cover Included



Please read this manual thoroughly before operation and keep it handy for further reference.

PACKAGE CONTENTS

- **Please make sure that the following items are included in the package:**

1 HT-647H RTP Camera

4 Mounting Screws

1 Chameleon Dome Cover

1 Video Test Lead

Please leave this manual with the end-user for future reference.

PRECAUTIONS

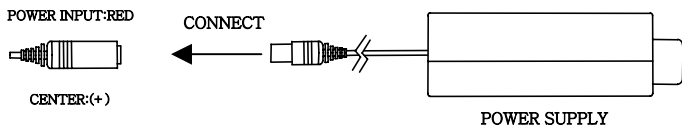
- This dome camera should be only installed by qualified personnel
- To prevent a fire or electrical hazard please use proper power cable
- The dome cover should be treated with care
- Do not clean the cover with an abrasive cleaning material- please use a soft cloth or tissue to clean the dome cover
- There are no user-adjustable parts inside. Please do not disassemble this camera other than to make initial adjustments.
- Please use a UL approved regulated 12-volt DC power supply
- Please use appropriate low voltage power cable to prevent fire or electrical shock.
- Please insure that your installation area can support the weight of the camera.
- Please handle this camera carefully:
 - Don't use a strong or abrasive detergent when cleaning the camera.
 - Don't expose the camera to direct sun

CAMERA INSTALLATION

Connections :

1. Apply 12-Volts DC (constant voltage 300mA or better)

-CONNECT POWER TO THE POWER JACK.



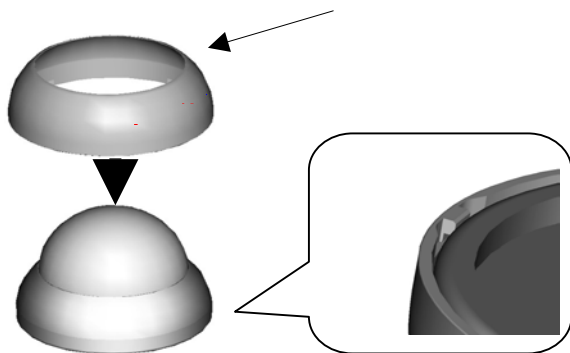
2. CONNECT VIDEO CABLE

-CONNECT BNC CABLE TO THE BNC JACK.



CHAMELEON DOME INSTALLATION

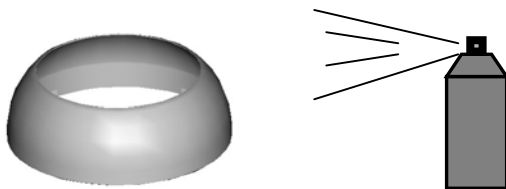
3. If desired, place the Chameleon Dome over the HT-647H RTP



Push the Chameleon Dome over the HT-647H RTP until it snaps into position.

● **Notes : If painting is desired, please do so before installation**

*** Painting method on Chameleon Dome**



- * Spray the Chameleon Dome with your desired color**
- * If necessary apply a second coat**

● Features

SLC

When the image is in front of strong background lighting, your camera allows you to get the clear image.

INTENSIFIER

1/3 inch density CCD and digital processor permit high quality pictures to be captured in very low light condition.

High Resolution

Horizontal resolution of 540 TV lines is achieved by using a SONY Double Speed CCD with 410,000 pixels, yielding pictures with a high S/N ratio..

Motion Detection

Built in motion detector with adjustable areas of coverage will flash a warning on the screen when motion is detected.

OSD

All camera functions are menu driven for easy use.

Dynamic Noise Reduction

The Intensifier camera has a DSP chip that can remove image noise efficiently showing clean images in low light conditions.

ELECTRONIC DAY/NIGHT

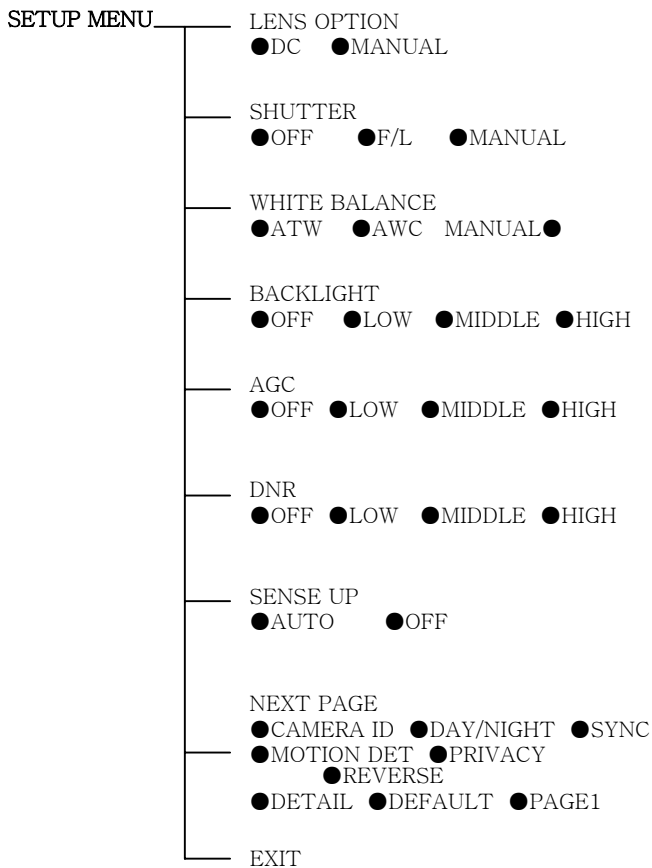
The Intensifier camera can show color pictures in all lighting conditions, or you can have it automatically switch to a B/W picture in low light conditions

MANUAL / AUTO IRIS LENS

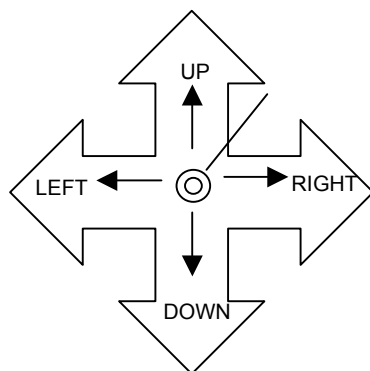
The Intensifier camera will work with auto iris, manual iris and fixed iris lenses.

● Operating your camera

OSD Function



OSD Menu Setting

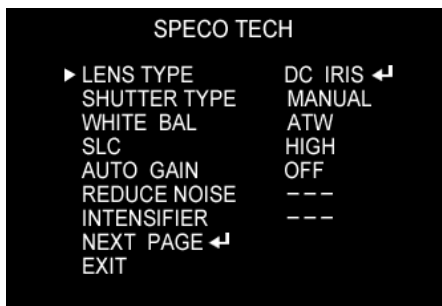


Push the Joy stick for one second, and the OSD appears on the screen. Move the Joy Stick up, down, left & right to control the OSD functions.

● Operating your camera – SETUP

1. Press the SET button (JOYSTICK) to access the SETUP mode.

➡ SET UP menu is displayed on the monitor screen.



2. Select the desired feature using the UP or DOWN button.

➡ Each time you press the UP or DOWN button, the arrow indicator moves up or down.

Move the arrow indicator to the desired feature item.

3. Change the status of the selected feature using the LEFT or

RIGHT button.

➡ If you press RIGHT or LEFT button, it appears available status.

Press the button when gets desired feature.

4. When completed, move the arrow indicator to 'EXIT' and press

the SET button.

● Notes

You can access submenu using SET button.

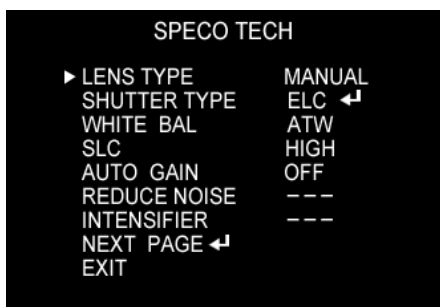
For the mode with '---', you may not access submenu.

● Operating your camera – SETUP LENS

1) Setting up the LENS

Select the lens pressing the RIGHT button.

- ① On the SETUP menu screen, move the arrow indicator to the lens using the UP or DOWN button.
- ② Select LENS TYPE as 'MANUAL' using the LEFT or RIGHT button.



2) Shutter status and speed control

You can control brightness of the screen by the shutter speed.

- ① Press the SET button to display the setup menu and move the arrow indicator to 'SHUTTER' using the UP or DOWN button.
- ② Set 'SHUTTER' to the desired mode using the LEFT or RIGHT button.



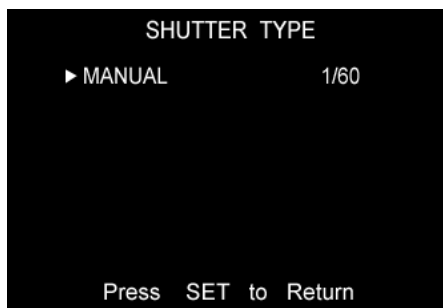
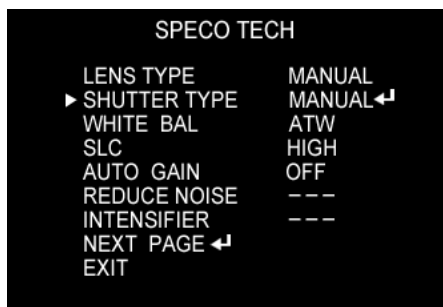
- OFF : Deactivation



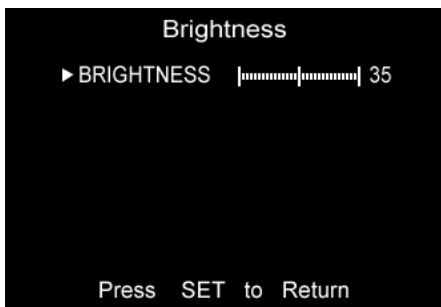
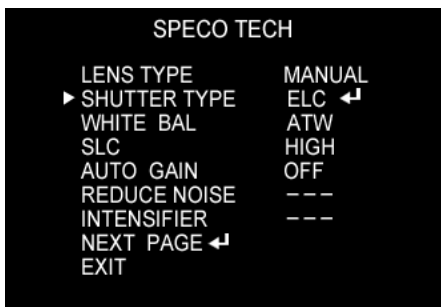
- FLK(1/100) : Flicker mode

● Operating your camera – SETUP SPEED CONTROL. ②

- MANUAL : When setting the shutter speed manually.
You can select speed from '1/60' to '1/200,000'sec



► ESC : You can control the BRIGHTNESS.



③When completed, press 'SET'

● Notes

Avoid pointing the camera directly at a fluorescent lamp

When the SHUTTER menu is set to FLK mode, the INTENSIFIER will not work.

● Operating your camera – BACKLIGHT

3) SLC (Speco Light Compensation) – BACKLIGHT

A built-in SR chip provides intelligent light level control to overcome

severe Backlight conditions.

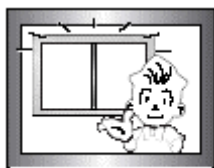
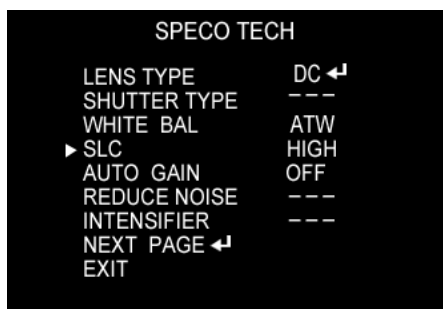
- ① Press the SET button to display the SETUP menu and move the arrow indicator to 'BACKLIGHT' using the UP or DOWN button.
- ② SET 'BACKLIGHT' to the desired mode using the LEFT or RIGHT button.

▶ OFF

▶ LOW

▶ MIDDLE

▶ HIGH



BLC



OFF

4) AUTO GAIN CONTROL (AGC)

AGC allows a brighter picture in low light conditions. Higher GAIN level

will yield a brighter screen but you might notice an increase in noise.

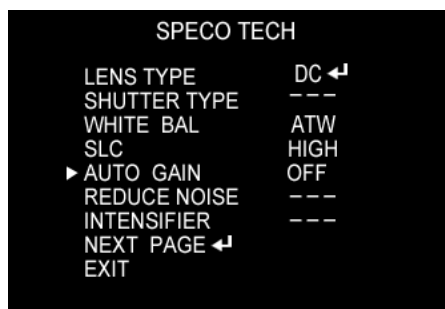
- ① Press the SET button to display the SETUP menu and move the arrow indicator to 'AGC' using the UP or DOWN button.
- ② SET 'BACKLIGHT' to the desired mode using the LEFT or RIGHT button.

▶ OFF

▶ LOW

▶ MIDDLE

▶ HIGH



● Operating your camera – WHITE BALANCE

5) WHITE BALANCE

- ① Press the SET button to display the SETUP menu and move the arrow indicator to 'WHITE BALANCE' using the UP or DOWN button.
- ② Set 'WHITE BAL.' to the desired mode using LEFT or RIGHT button.



▶ ATW (Auto Tracking White Balance)

: When color temperature is 2400~12000K, select this mode.

(ex. A fluorescent lamp, outdoor).

This is the best setting for most conditions.

▶ AWC (Auto White Balance Control)

: The white balance is automatically adjusted in a specific environment.

In order to obtain the best result, press the set button while the camera focuses on white paper. If the environment including the light source is changed, you have to adjust the white balance again.

► **MANUAL** : To fine adjust, select the Manual mode. You can increase or decrease the red or blue factor while monitoring the difference on the screen. Set to 'MANUAL' mode and press the SET button. Increase or decrease the value for RED(R-Gain) and BLUE(B-Gain), watching the color of the picture, and press the SET button when you obtain the best color.

● Notes

Proper White Balance may not be obtained under the following conditions
in these cases select the AWC mode.

When the scene contains mostly high color temperature object, such as a blue sky or sunset.

When the scene is dim.

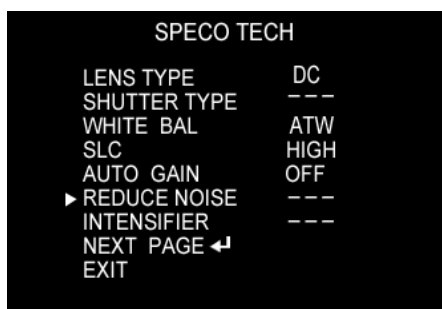
If your camera faces fluorescent lamp directly or is installed in the place of the changing illumination.

● Operating your camera – REDUCE NOISE

6) REDUCE NOISE (Dynamic Noise Reduction)

DNR is to reduce the noise on the screen.

- ① Press the SET button to display the SETUP menu and move the arrow indicator to 'DNR' using the UP or DOWN button.
- ② SET 'REDUCE NOISE' to the desired mode using the LEFT or RIGHT button.



- ▶ OFF : Deactivation
- ▶ LOW : Low reduction of the noise
- ▶ MIDDLE : Middle reduction of the noise
- ▶ HIGH : High reduction of the noise

● Notes

If you change the 'GAIN' menu from AGC-L to AGC-H sensitivity is increased as well as noise on the screen.
When selected 'GAIN' menu OFF, DNR will not work.

● Operating your camera – INTENSIFIER

7) INTENSIFIER

Allows you to get clear images with this function under night or low light conditions

- ① Press the SET button to display the SETUP menu and move the arrow indicator to 'SENCE UP' using the UP or DOWN button.
- ② SET 'INTENSIFIER' to the desired mode using the LEFT or RIGHT button.



- AUTO : When your camera is under night or low-lighting level, select this mode. This mode allows the camera to switch into B/W in low light conditions.

● Notes

If you press SETUP button at 'AUTO' menu, you can control the lowlight action maximum magnifications.(X2~X128)

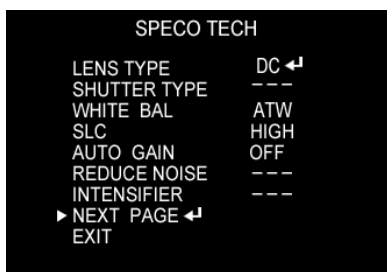
Increasing the amount of Intensification results in brighter pictures Under low light conditions, and may increase image lag.

Increasing the amount of intensification may cause image noise which is to be expected as a normal condition.

● Operating your camera – CAMERA TITLE ①

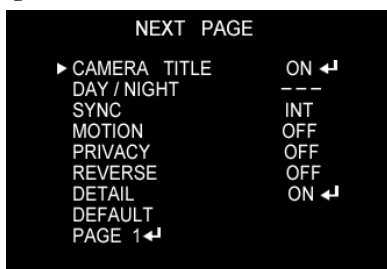
8) NEXT PAGE

- ① Press the SET button to display the SETUP menu and move the arrow indicator to 'SENCE UP' using the UP or DOWN button.
- ② SET 'NEXT PAGE' to the desired mode using the LEFT or RIGHT button.



(A) CAMERA TITLE

- ① Press the SET button to display the SETUP menu and move the arrow indicator to 'CAMERA ID' using the UP or DOWN button.
- ② SET 'ON' using the LEFT or RIGHT button.



● Notes

If the CAMERA ID feature is set to 'OFF', the name will not displayed in the monitor.

● Operating your camera – CAMERA TITLE ②

- ③ Press SET button to access the SETUP mode.
- ④ You can enter up to 15 characters.
 - a. Move the cursor to character-enter location by using the LEFT or RIGHT button.
 - b. Select the desired character by using the UP or DOWN button.
 - c. Press SET button to confirm the blinking character. The first character is saved and the cursor in the bottom of the screen moves to the next position.
 - d. Repeat steps a, b and c until you create the full name you want.
 - e. Select the position at which the CAMERA ID will be located on the screen.
- Move the cursor to 'POS' and press SET button.
- Select the position by using the 4-directional buttons, then press the SET button to confirm the position.
- f. When completed, move the cursor to 'END' and press SET button.



● Notes

If you make a mistake while entering a name move the cursor "CLR". Press "SET" button.

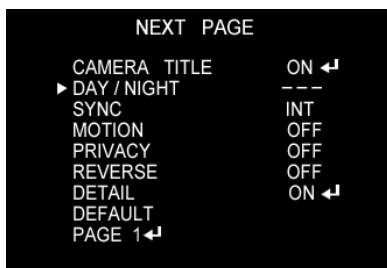
After erasing the character from right to left, correct the character again.

● Operating your camera – COLOR / SYNC

B) COLOR

You can choose color and B/W mode electronically.

- ① Press the SET button to display the SETUP menu and move the arrow indicator to 'SENCE UP' using the UP or DOWN button.
- ② SET 'SENCE UP' to the desired mode using the LEFT or RIGHT button.



- ▶ COLOR : The camera will always display a color picture
- ▶ AUTO : The camera will switch into B/W mode under low light conditions.

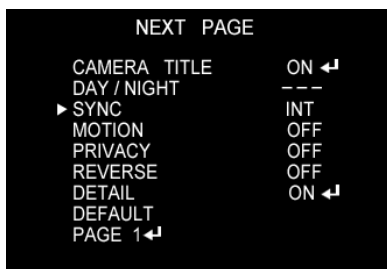
● Notes

OSD Key may not work for 3 seconds for the stable when COLOR/ BW mode is changed

C) SYNC

Two SYNCHRONIZATION modes are available INTERNAL and EXTERNAL LINE-LOCK

- ① Press the SET button to display the setup menu and move the arrow indicator to 'SYNC' using the UP and DOWN button.
- ② SET to the desired mode using the LEFT or RIGHT button.



- INT : Internal synchronization
- L/L : If you choose 'L/L', you can adjust the desired phase.
 - Press the SET button.
 - You can adjust the desired phase from 0 to 270.

● Notes

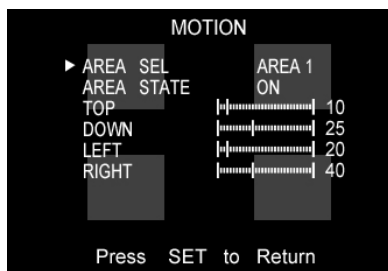
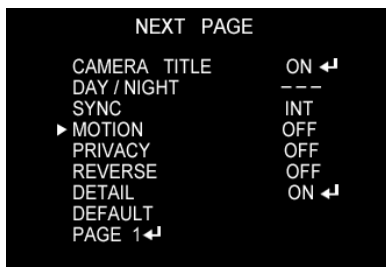
When it used in 24V AC power the L/L mode can be used.

In DC12V, the SYNC menu defaults to " internal.

● Operating your camera – MOTION DETECTION

D) Whenever your camera detects motion, THE WORDS “motion detected” will appear on the screen.

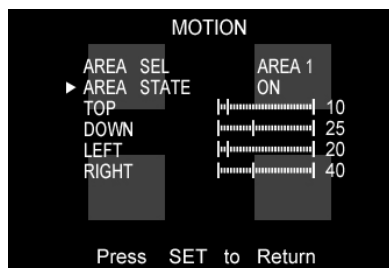
- ① Press the SET button to display the setup menu and move the arrow indicator to ‘MOTION DET’ using the UP and DOWN button.
- ② SET ‘MOTION DET’ to the desired mode using the LEFT or RIGHT button.



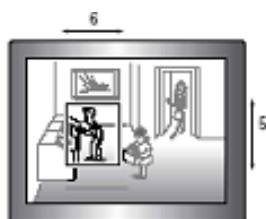
► OFF : Deactivation

► ON : MOTION DET. Activated

- Press SET button.
- Move the arrow indicator to ‘AREA SET’ using UP and DOWN button, and then press the SET button.
- Set the areas you want to observe.



Max.



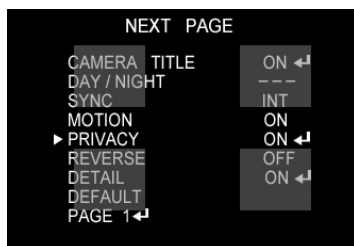
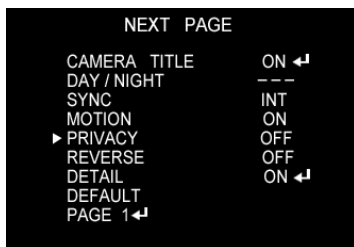
Min.

● Operating your camera – PRIVACY

E) PRIVACY

To mask an area that you want to be private.

- ① Press the SET button to display the setup menu and move the arrow indicator to 'PRIVACY' using the UP and DOWN button.
- ② SET 'PRIVACY' to the desired mode using the LEFT or RIGHT button.



► OFF : Deactivation

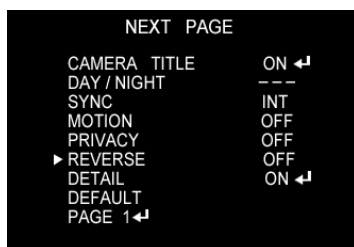
► ON : PRIVACY mode activated

- Press the SET button.
- Move the arrow indicator to area you want to mask.
- Set 'ON' using LEFT or RIGHT button.
- Press the SET button and then set the area's bounds as for Motion detection

● Operating your camera – REVERSE

F) REVERSE

- ① Press the SET button to display the setup menu and move the arrow indicator to 'REVERSE' using the UP and DOWN button.
- ② SET 'REVERSE' to the desired mode using the LEFT or RIGHT button.



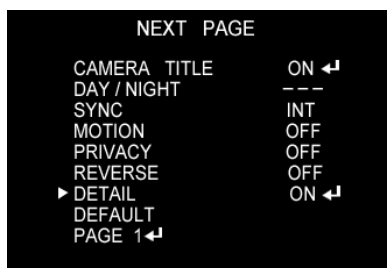
▶ OFF : Deactivation

▶ ON : Reverse the image RIGHT or LEFT.

● Operating your camera – DETAIL

F) DETAIL

- ① Press the SET button to display the setup menu and move the arrow indicator to 'DETAIL' using the UP and DOWN button.
- ② SET 'DETAIL' to the desired mode using the LEFT or RIGHT button.



► OFF : Deactivation

► ON : DETAIL control mode (level 0~31)

When the level is up, the sharpness will increase.

Control this level to get your best picture quality.

If the level is too high, you can get an unnatural image with video noise.

● Operating your camera – DEFAULT / PAGE 1

G) DEFAULT

: Use to reset your camera to FACTORY DEFAULT SETTING.

H) PAGE 1

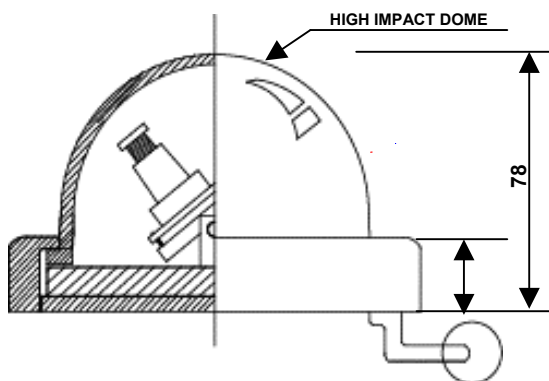
: PAGE 1 : Save the setting of NEXT PAGE function, and then
move to SET UP menu.

SPECIFICATIONS

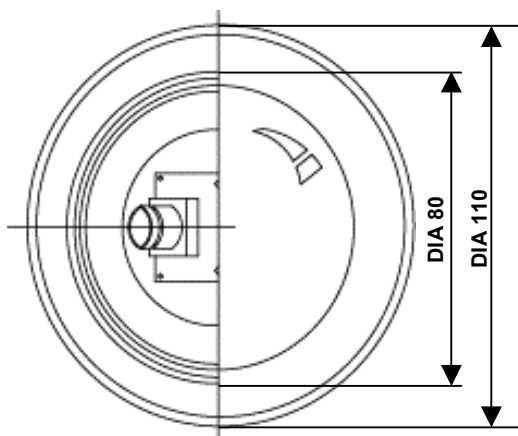
ITEM	HT-647HRTF
Power Source	12 Volts DC - Regulated
Power Consumption	230mA (DC)
Image Sensor	1/3", SONY SUPER HAD CCD, 410,000 pixels
Total Pixels	811(H) x 508(V), 1/3" CCD
Effective Pixels	768(H) x 494(V), 1/3" CCD
Maximum Aperture Ratio	1 : 1.3
Scanning System	2 : 1 Interlaced 525 Lines / 60 Fields / 30 Frames
Synchronization	Internal – Crystal Controlled
Video Output	1.0V [p-p] NTSC Composite, 75Ω / BNC Connector
Resolution	540 TV Line
Gain Control	AGC-L, AGC-H, OFF selectable
Electric Shutter Speed	1/60 ~ 1/200,000 sec
INTENSIFIER	Built-in (selectable limit ~ X128)
WHITE BALANCE	ATW / AWC / MANUAL
Min. Illumination	0.002Lux (intensifier) 0.3Lux(sh)
S/N (Y signal)	50dB (Weight On)
REDUCE NOISE	OFF / LOW / MIDDLE / HIGH
Motion Detection	MD1 / MD2 / OFF
On Screen Display (O.S.D)	Built - in
PRIVACY Function	ON / OFF (4 Programmable Zone)
Operational Temperature	-10℃ ~ +50℃ (14°F ~122°F)
Operational Humidity	30% ~90% RH

DIMENSIONS

* SIDE VIEW



* TOP VIEW



WARRANTY



speco technologies®

LIMITED WARRANTY

THIS WARRANTY IS VALID ONLY ON PRODUCTS PURCHASED AND USED IN THE UNITED STATES OF AMERICA. THIS WARRANTY APPLIES ONLY TO THE ORIGINAL USER.

SUBJECT TO CONDITIONS AND EXCLUSIONS FOUND BELOW, THIS PRODUCT IS WARRANTED AGAINST MANUFACTURING DEFECTS IN MATERIAL AND WORKMANSHIP FOR THE FOLLOWING PERIOD FOR PARTS AND LABOR:

SPECO TECHNOLOGIES CAMERAS:	5 YEARS
SPECO TECHNOLOGIES MONITORS:	1 YEAR
BALANCE OF SPECO TECHNOLOGIES LINE:	1 YEAR*
* IR LEDs, Time lapse VCR Drum Assemblies & Heads:	90-DAYS

SPECO TECHNOLOGIES WILL REPAIR OR REPLACE (AT OUR DISCRETION) ANY PARTS FOUND TO BE DEFECTIVE FOR THE WARRANTY PERIOD SPECIFIED. WE WILL PROVIDE A REPLACEMENT FOR ANY DEFECTIVE PART.

CONDITIONS

1. YOU MUST OBTAIN A RETURN AUTHORIZATION NUMBER FOR ANY MERCHANDISE BEING RETURNED TO SPECO TECHNOLOGIES, WHETHER FOR RETURN/EXCHANGE OR REPAIR, WHETHER IN OR OUT OF WARRANTY.

2. THIS WARRANTY WILL BE HONORED ONLY UPON PRESENTATION OF THE ORIGINAL DATED BILL OF SALE OR SALES SLIP.

3. TRANSPORTATION OF THE PRODUCT TO OUR SERVICE DEPARTMENT IS THE RESPONSIBILITY OF THE USER. REPAIRED OR REPLACED PRODUCT WILL BE RETURNED PREPAID DURING THE WARRANTY PERIOD.

EXCLUSIONS

1. THIS WARRANTY SHALL NOT COVER ADJUSTMENT OF CUSTOMER OPERATED CONTROLS AS EXPLAINED IN THE APPROPRIATE MODEL'S INSTRUCTION MANUAL OR PRODUCTS WHICH HAVE BEEN ALTERED, ABUSED, OR HAVE MISSING OR ALTERED SERIAL NUMBERS.

2. THIS WARRANTY SHALL NOT APPLY TO UNCRATING, SETUP, INSTALLATION, OR THE REMOVAL AND REINSTALLATION OF PRODUCTS AFTER REPAIR.

3. THIS WARRANTY SHALL NOT APPLY TO REPAIRS OR REPLACEMENTS NECESSITATED BY ANY CAUSE BEYOND THE RESULT OF MANUFACTURE INCLUDING, BUT NOT LIMITED TO, ANY MALFUNCTION, DEFECTS OR FAILURE CAUSED BY OR RESULTING FROM UNAUTHORIZED SERVICE OR PARTS, IMPROPER MAINTENANCE, MODIFICATION OR REPAIR BY THE USER, ABUSE, MISUSE, NEGLIGENCE, ACCIDENT, FIRE, FLOOD, OR OTHER ACTS OF NATURE, INCORRECT LINE VOLTAGE, DAMAGE OR IMAGE BURNS TO TELEVISION PICTURE TUBES CAUSED BY OR ATTRIBUTABLE TO THE USE OF ANY ACCESSORY, ELECTRONICS GAME OR DEVICE, OR DAMAGE CAUSED TO IMAGE PICKUP DEVICES BY EXCESSIVE LIGHT.

THE FOREGOING IS IN LIEU OF ALL OTHER EXPRESSED WARRANTIES AND WE DO NOT AUTHORIZE ANY PARTY TO ASSUME FOR US ANY OTHER OBLIGATION OR LIABILITY. IN NO EVENT SHALL WE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF THIS PRODUCT, OR FOR ANY DELAY IN THE USE OF THIS PRODUCT DUE TO CAUSES BEYOND OUR CONTROL.

SOME STATES DO NOT ALLOW LIMITATIONS OF HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OR LIMITATION OF CONSEQUENTIAL DAMAGES. THE ABOVE LIMITATIONS ON IMPLIED WARRANTY AND CONSEQUENTIAL DAMAGES MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

NOTE: FOR YOUR PROTECTION IN THE EVENT OF THEFT OR LOSS OF THIS PRODUCT, PLEASE FILL IN THE INFORMATION REQUESTED BELOW AND RETAIN WITH YOUR SALES RECEIPT.

MODEL NO.: _____ SERIAL NO.: _____
(LOCATED ON BACK OR BOTTOM OF UNIT)

DATE OF PURCHASE: _____

WHERE PURCHASED: _____ PURCHASE PRICE: _____

Speco Technologies
200 NEW HIGHWAY
AMITYVILLE, NY 11701 www.specotech.com

FOR MORE INFORMATION REGARDING
SERVICE OR RETURN, CALL US
TOLL FREE: 1-800-645-5516 IN METRO NY: 631-957-8700



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631-957-8700
www.specotech.com**

VER. 070820

This manual is based on the date as shown in the right and specifications are subject to Change without notice for quality improvement.